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EXAMINER

OH, TAYLOR V

ART UNIT

PAPER NUMBER

1625

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12

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/672,328

Applicant(s)

BELMONT, JAMES A.

Examiner

Taylor Victor Oh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 7 and 20-31 is/are rejected.
- 7) ☒ Claim(s) 5 and 8-19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Applicant's arguments with respect to claims 1-31 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

1. Claim 1 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a pigment such as blue, black, white, brown, cyan, green, violet, magenta, red, yellow and mixtures thereof, anthraquinones, phthalocyanine blues, phthalocyanine greens, diazos, monazos, pyranthrones, perylenes, heterocyclic yellows, quinacridones, and (thio)indigoids does not reasonably provide enablement for all the pigments in the chemical field. Furthermore, the instant specification fails to provide information that would allow the skilled artisan to practice the instant invention without **undue experimentation**.

Attention is directed to *In re Wands*, 8 USPQ2d 1400 (CAFC 1988) at 1404 where the court set forth the eight factors to consider when assessing if a disclosure would have required undue experimentation, citing *Ex Parte Forman*, 230 USPQ 546 (BdApls 1986) at 547 the court recited eight factors:

- 1) the quantity of experimentation necessary,
- 2) the amount of direction or guidance provided,
- 3) the presence or absence of working examples,
- 4) the nature of the invention,
- 5) the state of the prior art,

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- 6) the relative skill of those in the art,
- 7) the predictability of the art, and
- 8) the breath of the claims.

In the instant case, the claim encompasses any pigments. However, applicants' specification provide only 6 particular examples to represent the claimed invention of numerous modified pigments. Those examples can not be the representatives of the entire modified pigments. Thus, the specification herein have failed to provide sufficient working examples to support the claimed modified pigments and the method of making them. Therefore, an appropriate correction is required.

The specification, while being enabling for one organic ionic group such as $C_6H_4CO_2$, $C_6H_4SO_3$, $C_{10}H_6CO_2$, $C_{10}H_6SO_3$, $C_2H_4SO_3$, and etc. does not reasonably provide enablement for all the organic ionic groups in the chemical field. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, all the organic ionic groups unrelated to the current invention commensurate in scope with these claims. Therefore, the scope of the claim regarding the organic ionic groups is limited to the list of the the organic ionic groups in the specification. An appropriate correction is required.

The specification, while being enabling for one amphiphilic counterion group such as cationic amphiphilic ions and anionic amphiphilic ions does not reasonably provide enablement for all the amphiphilic counterion groups in the chemical field. The

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specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, all the amphiphilic counterion groups unrelated to the current invention commensurate in scope with these claims. Therefore, the scope of the claim regarding the amphiphilic counterion groups is limited to the list of the the amphiphilic counterion groups in the specification. An appropriate correction is required.

Claims 23, 25, 29 and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 23, a term "non-aqueous" is written. However, it is vague and indefinite. For example, the non-aqueous can be power or oily material in the composition . Therefore, an appropriate correction is required.

In claim 25, terms "binder", "one dyer", "one biocide", "penetrant", "surfactant" are written. However, each of them is vague and indefinite. For example, the binder can be defined and specified in many ways; the rest of the terms need to be described in details. Therefore, an appropriate correction is required.

In claims 29 and 31, terms "a substrate" and "a solvent" are written. However, each of them is vague and indefinite. For example, the substrate can be defined and specified in many ways. Also, the claim does not describe what kinds of the solvent can be used in the method. Therefore, an appropriate correction is required.

Claim Rejections - 35 USC § 103

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5 The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

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2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1-4, 6-7 and 20-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adams et al (US 5,698,016) in view of Kato et al (US 5,731,115).

Adams et al disclose a modified pigment such as carbon black having attached at least one organic group and at least an amphiphilic , which can have a charge opposite to that of the organic ionic group; furthermore, for the organic group attached to the carbon, the organic group can be at least one aromatic group or one C₁-C₁₂ alkyl group which is directly attached to the carbon (see col. 5, lines 32-33); also, Adams et al have pointed out the formation of a carbon black with a polymeric cationic amphiphile (see col. 20, lines 1-58) such as methyl acrylate, methyl methacrylate, butyl acrylate, styrene (see col . 4 , lines 14-16). In addition, an ink may include a vehicle which functions as a carrier during printing and / or additives to improve printability and drying (see col. 8 ,lines 5-8).

Moreover, the reference does indicate that the formation of a non-aqueous or aqueous emulsion inkjet ink contains a suitable vehicle, binders and additives (see col. 9 lines 45-59).

However, Adams et al differ from the instant invention in that the steric group is unspecified; a print plate contains a substrate; a protective layer and an absorptive layer containing at least one modified pigment ; and a method of imaging a lithographic print plate using a laser is not disclosed, along with subjecting the plate to a solvent for the removal of portions from the imaged layer.

Kato et al disclose a preparation of a waterless lithographic printing plate by using a laser beam (see col. 3 ,lines 8-11). Furthermore, the photoconductive layer includes a substrate with a precoated layer (see col. 9 ,lines 40-50), charge generating agents including organic pigments (see col. 6 , lines 65-67), such as carbon black (see col. 17 ,line 18). Moreover, in the wet process, the non-tacky resin layer is treated with a solvent to remove portions from the imaged layer (see col. 31, lines 13-15).

Concerning the lack in describing the steric group, Adams et al do describe that the organic group can be at least one aromatic group or one C₁-C₁₂ alkyl group which is directly attached to the carbon (see col. 5, lines 32-33). From this, the bulky group like the aromatic group can be used as either the organic group or the steric group depending on the choice of the skilled artisan in the art. Therefore, it would have been obvious to the skillful artisan in the art to have motivated to use the Adams et al organic group as the steric group in the Adams et al's modified carbon black .

Adams et al do disclose the use of the carbon black with a polymeric cationic amphiphile as an ink which may include a vehicle which functions as a carrier during printing and /or additives to improve printability and drying (see col. 8 ,lines 5-8) and Kato et al do disclose the preparation of the waterless lithographic printing plate in which one of the ingredients such as the carbon black is included in the photoconductive layer.

Therefore, if the person having an ordinary skill in the art had desired to improve the properties of the printing plate such as printability of the printing plate, it would have been obvious to the skillful artisan in the art to have motivated to incorporate Adams et

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al's modified carbon black with a polymeric cationic amphiphile into the Kato et al 's preparation of the waterless lithographic printing plate as an alternative to the ordinary carbon black with an expectation of a similar success as in the Keto et al's process.

7. Claims 5 and 8-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to T. Victor Oh whose telephone number is (703) 305-0809. The examiner can normally be reached on Monday through Friday from 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alan Rotman , can be reached on (703) 308-4698. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-4556.

3/9/03

Alan L Rotman

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